(complete in 3 issues)

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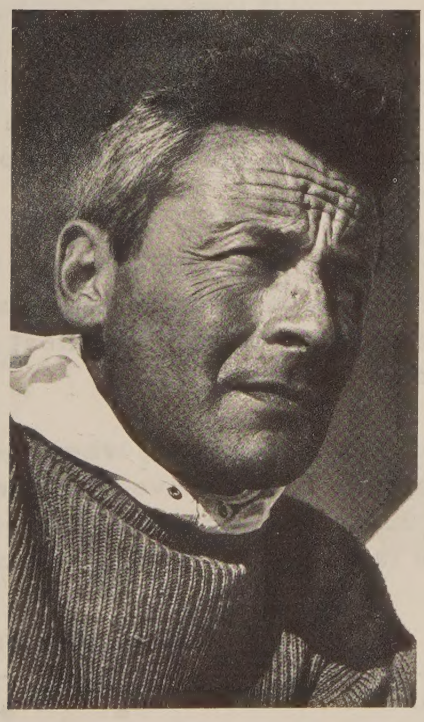
EXPEDITIONS POLAIRES FRANCAISES*

by John Hanessian, Jr.

Paris
April 12, 1960

It was another fine spring morning just about four years ago when I first met Paul-Émile Victor. The place was Washington. Paul was in town whipping up United States logistic support for his various polar enterprises. Hopping from the Pentagon to the Naval Antarctic Task Force and finally to our Antarctic office in the National Academy of Sciences, he patiently explained his problem in faultless English--finally getting around to making his request most persuasively. All he wanted was 10,000 gallons of aviation gas available in the center of Antarctica! His project: to equip a French four-engine aircraft to fly from Tierra del Fuego at the tip of South America clear across the Antarctic continent.



Paul-Émile Victor

*This report was written by Mr. Hanessian while he was a Fellow of the Institute of Current World Affairs and was distributed by the Institute as Newsletter JH-14.

[JH-1-'60]

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HANESSIAN, JR., the author of this
concerns himself with the polar
the international legal problems
e as well as various social, histori-
economic aspects. He made a trip
Antarctic in connection with the
ion Geophysical Year, and has since
t the Scott Polar Research Institute
ridge University, and visited polar
nters in other countries.

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Victor has been variously described as a modern French hero, as an "operator," and as a man with an insatiable appetite for polar exploration.

Perhaps he embodies all the definitions. A medium-sized, rather handsome man, he immediately gives the impression of great vitality. With a relaxed manner, yet exhibiting an intensity of purpose unmatched in modern-day European polar explorers, Victor has, for 13 years, carried on a one-man battle against all the conservative forces within the French Government to gain for France a strong and efficient polar research program. And he has won.

As the founder and director of the Expeditions Polaires Francaises (E.P.F.) since 1947, Victor has been responsible for the revival, on a large scale, of French participation in polar exploration and research.[1] He has organized major wintering expeditions to the Greenland ice-cap, and to Terre Adelie in Antarctica. Remarkable have been his contributions to improving the technique of polar operations--especially his development of the use of aircraft to free-drop supplies to ground parties using mechanical oversnow vehicles, and his demonstration, for the first time, of the feasibility of operating and supplying a year-round station on the Greenland ice-cap.

Born in Geneva in 1908 of French parents, Victor was educated in France as a civil engineer. His polar experience began in 1934, when he accompanied the famous French explorer Dr. Jean Charcot on the "Pourquois-Pas?" on a year-long expedition to the east coast of Greenland, where the winter was spent at Angmagssalik.

Five months after his return to France in 1936 with his polar appetite whetted, Victor again re-embarked for Greenland, this time to traverse with a dog team and three men the inland ice sheet from Christianshaab to Angmagssalik, a distance of 450 miles.

It was during this 49-day traverse, when the group stopped to rest, that Victor and his companions first evolved the idea of a continuing research program aimed at prying loose the secrets of Greenland's huge ice-cap (except for Antarctica the largest ice mass in the world, some 674,000 square miles).[2]

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[1] French exploration in the Antarctic region began more than two centuries ago with the discovery of Bouvet Island by Bouvet de Lozier during 1738-39, and Kerguelen Island in 1771-72 by Yves de Kerguelen-Tremarec. The tradition was continued by Capt. Jules Dumont d'Urville in an official French expedition to Antarctica from 1837-40 and by Dr. Jean Charcot in his two expeditions, 1904-05 in the "Francais," and 1908-10 in the "Pourquois-Pas?".

[2] The total area of Greenland is about 854,000 square miles.

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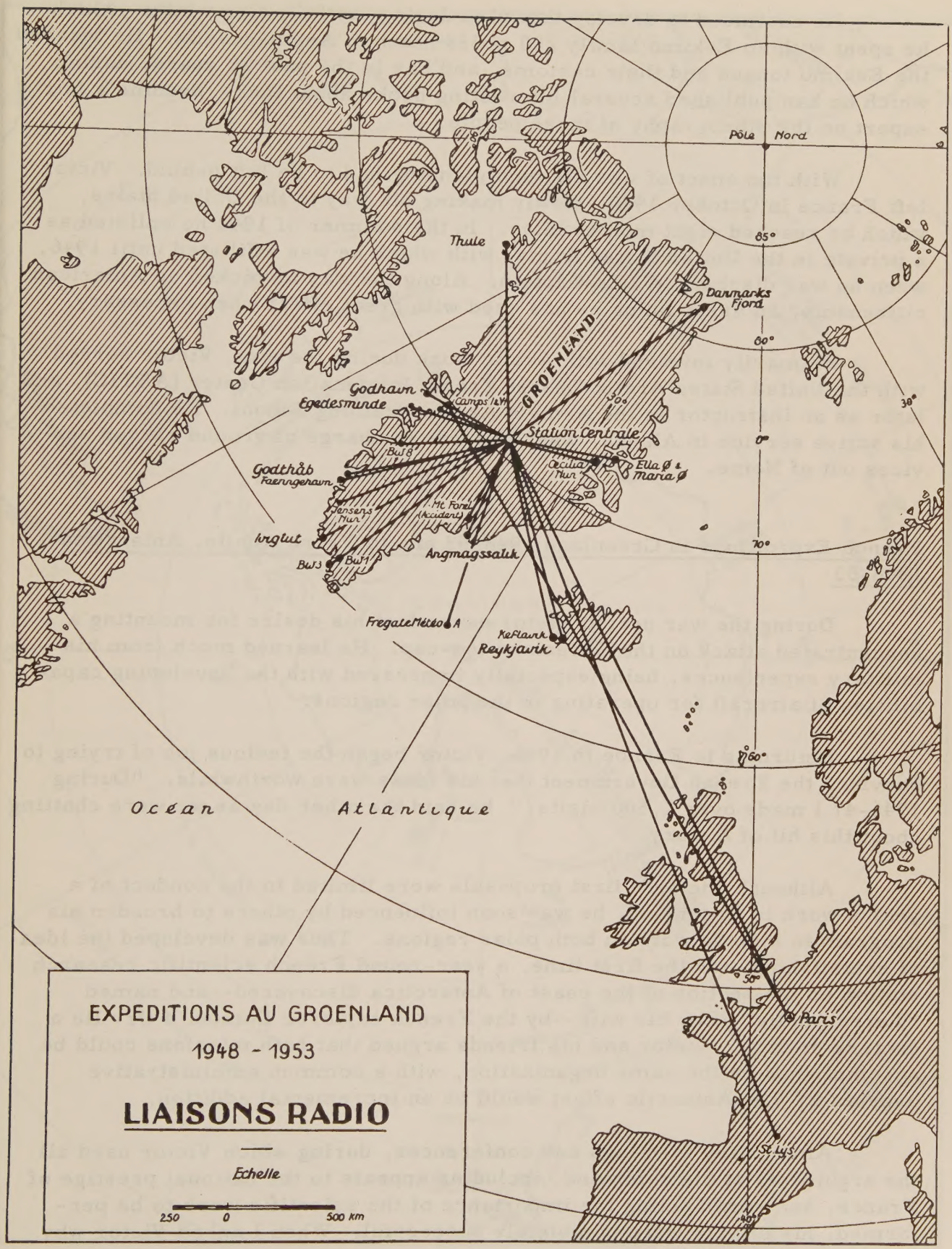
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EXPEDITIONS AU GROENLAND
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He continued to develop this plan during the following winter, which he spent with an Eskimo family 200 miles north of Angmagssalik. He learned the Eskimo tongue and their customs, and has in the past 20 years, during which he has published several interesting books about them, become a fair expert on the ethnography of these people.

With the onset of war all such planning had to be left behind. Victor left France in October 1940, slowly making his way to the United States, which he reached eight months later. In the summer of 1942 he enlisted as a private in the United States Army, with which he was affiliated until 1946, when he was discharged as a Captain. Along the way he picked up American citizenship, an asset which he has used with great effect when necessary.

Primarily involved with Arctic work during the war, Victor served with the United States Arctic Desert Tropic Information Center (ADTIC), and later as an instructor in the Army's Arctic Training School. He completed his active service in Alaska, where he was in charge of ground rescue services out of Nome.

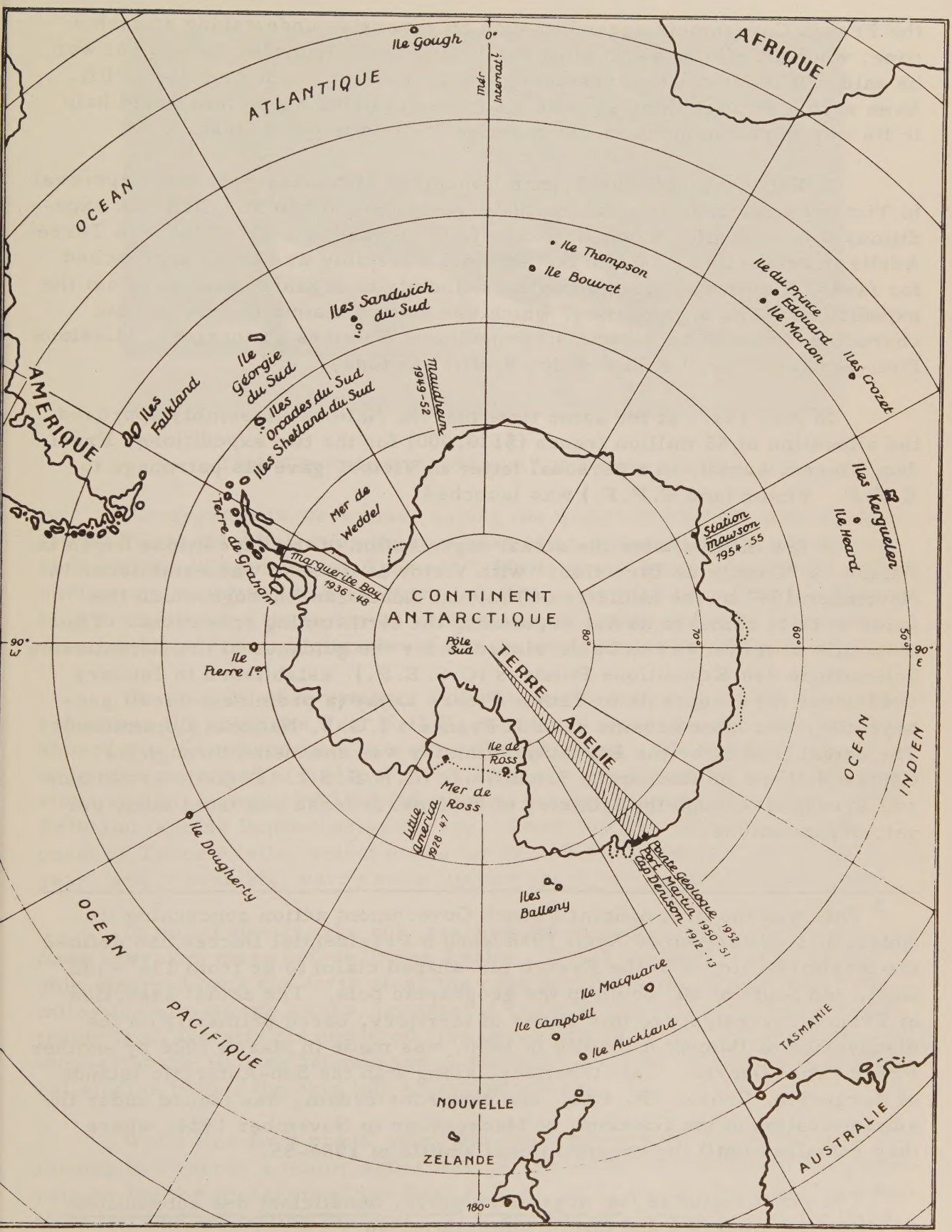
French Expeditions to Greenland 1948-53 and to Terre Adelie, Antarctica 1948-53

During the war period Victor never lost his desire for mounting a concentrated attack on the Greenland ice-cap. He learned much from his military experiences, being especially impressed with the developing capabilities of aircraft for operating in the polar regions.

Returning to France in 1946, Victor began the tedious job of trying to convince the French Government that his ideas were worthwhile. "During 1946-47 I made over 1,500 visits," he said the other day as we were chatting about this bit of history.

Although Victor's first proposals were limited to the conduct of a year's work in Greenland, he was soon influenced by others to broaden his program to include work in both polar regions. Thus was developed the idea of establishing, for the first time, a year-round French scientific research station on the section of the coast of Antarctica discovered--and named "Terre Adelie" after his wife--by the French explorer Dumont d'Urville a century earlier. Victor and his friends argued that both missions could be accomplished by the same organization, with a common administrative overhead. The Antarctic effort would be an incremental addition.

After many meetings and conferences, during which Victor used all the arguments at his command, including appeals to the national prestige of France, and emphasizing the importance of the scientific work to be performed, his efforts were completely successful. When I asked Victor why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Iles Orcades du Sud
Iles Shetland du Sud
Iles Falkland
AMERIQUE
Maudheim 1949-52
Mer de Weddel
Terre de Graham
Marguerite Bay 1936-48
Station Mawson 195#-55
Iles Kerguelen
Ile Heard
CONTINENT ANTARCTIQUE
Pôle Sud
90° W
90° E
80°
70°
60°
50°
Ile Pierre Ier
TERRE ADELIE
Ile de Ross
Mer de Ross
Little America 1928-47
Ile Dougherty
Route géologique 1952
Cap Mercur 1950-51
Cap Denison 1912-13
Iles Balleny
OCEAN PACIFIQUE
OCEAN INDIEN
Ile Macquarie
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the French Government agreed to such an expensive undertaking at such a time, when all efforts were being made to recover from the ravages of war, he said: "It is simply that precisely at that moment France needed a 'lift.' Even such a strange thing such as a successful polar expedition would help in its way to revive our national prestige." He was quite right.

In February 1947 the French Council of Ministers gave their approval to Victor's amended proposal for the organization of two simultaneous expeditions with scientific aims, one to be in Greenland, the other to be in Terre Adelie in Antarctica.[3] While the National Assembly was being approached for funds, Victor was given complete authority to organize and carry out the expeditions. The organization, which has always maintained its private character,[4] was to be known as "Expeditions Polaires Francaises, Missions Paul-Émile Victor," a label which it still has today.

In July 1947, at the same time that the National Assembly approved the allocation of 45 million francs ($130,000) for the two expeditions, President Vincent Auriol, in a personal letter to Victor, gave his patronage to E.P.F. Victor (and E.P.F.) was launched.

A few months later the actual organization of the expeditions began in Paris. A "Comité de Direction," with Victor at its head was established in November 1947 by the Ministry of National Education (through which the funds were to come) to assist in planning the forthcoming operations. The scientific program was to be developed under the guidance of the Commission Scientifique des Expeditions Polaires (C.S.E.P.), established in January 1949 under the leadership of Father Pierre Lejay (a prominent Jesuit geophysicist, who later became head of France's I.G.Y. National Committee). The actual funding by the Education Ministry was channeled through its Centre National de Recherche Scientifique (C.N.R.S.). Logistic assistance was arranged through the Ministry of National Defense and from many private organizations.

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[3] This was the first official French Government action concerning its Antarctic territory since April 1938 when a Presidential Decree had defined the territorial limits to the French pie-shaped claim to be from 136°–142° East, and South of 60° South to the geographic pole. The actual assertion of French sovereignty to this sliver of territory, based primarily on the discoveries of Dumont d'Urville in 1840, was made in March 1924 by another Presidential Decree. This territory, along with the Sub-Antarctic islands of Kerguelen, Crozet, St. Paul, and New Amsterdam, was placed under the administration of the Governor of Madagascar in November 1924, where they remained until the organizational shuffle of 1954-55.

[4] The exact status is "un organisme privé, bénéficiant des subventions de l'État, et soumis à une tutelle administrative."

The "Commandant-Charcot" at Terre Adelie.

Arrangements were made during the winter of 1947-48 with the Ministry of Colonial Affairs for the purchase of an American ship, which was renamed the "Commandant-Charcot." While it was being adapted for polar navigation, a party, led by Victor, left France in mid-May 1948 for Greenland to carry out a three-month reconnaisance, preliminary to the more detailed long-term investigation of the ice-cap planned for the following year.

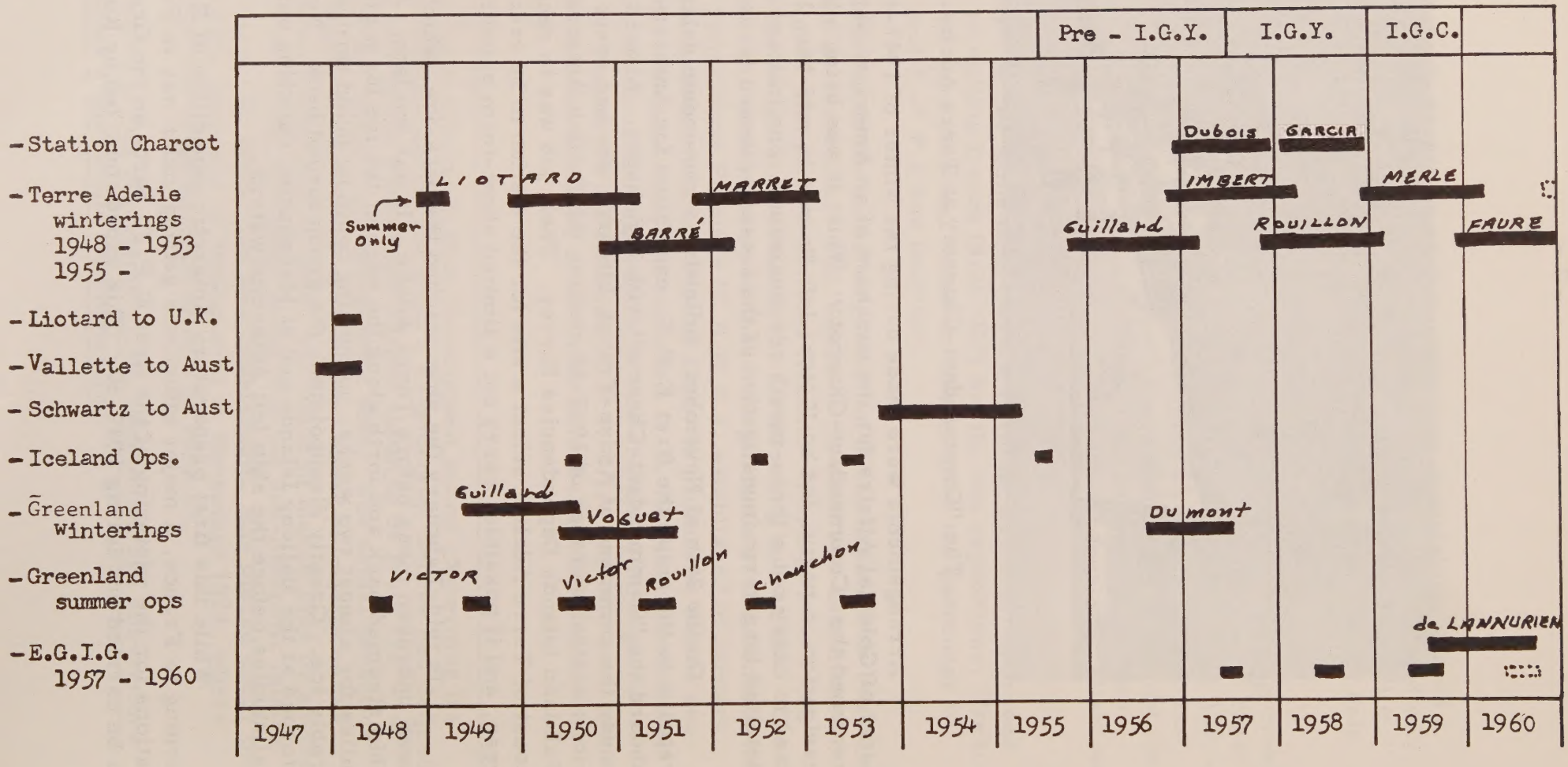
On the 26th of November, following a two-month delay for last minute repairs to the ship, the first E.P.F. expedition for Antarctica left France aboard the "Commandant-Charcot" with high hopes. Aboard were 12 men under the command of Andre-Franck Liotard, who had spent part of the previous austral summer of 1947-48 visiting the British Antarctic bases of the Falkland Islands Dependencies Survey. Their job was to reconnoiter the coast of Terre Adelie, select a site for the station to be erected the following year, and if possible, carry out a limited short-term scientific program.

In mid-February the ship reached the pack-ice, which stretched out in an unbroken mass before Terre Adelie. It was too late. Although the ship steamed back and forth along the edge of the ice for a distance of 300 miles for almost two weeks, no opening could be found through the impenetrable ice. Greatly disappointed, the group turned back. Nevertheless, they stopped at the Balleny Islands and at Macquarie, carrying out some geological studies before the ship left Antarctic waters.

While this first preparatory Antarctic expedition of E.P.F. was returning to France, a major effort was getting under way in Paris; the preparations for the wintering of the first E.P.F. party on the Greenland ice-cap to be carried out during 1949-50. This expedition, led by Robert Guillard,

EXPEDITIONS POLAIRES FRANCAISES - FIELD OPERATIONS 1947 - 1960

(Names indicate leaders of expeditions)

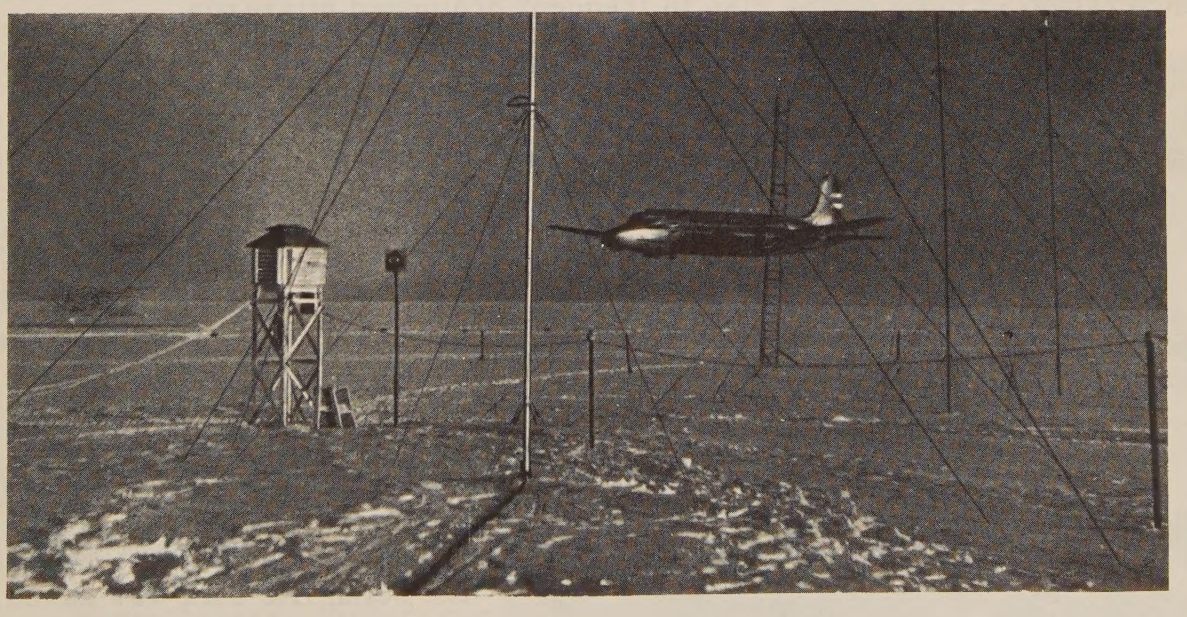


departed France in early April 1949. It became the first of two successful wintering expeditions to Greenland carried out by E.P.F.

During the years 1948-53 the Arctic efforts of E.P.F., in addition to these two wintering expeditions, included six summer campaigns in Greenland (three of which were led personally by Victor) and three summer campaigns in Iceland for shorter periods.

Simultaneously, the Antarctic work was carried out. Although, to some extent, the two separate programs complemented each other, work was constant during these years. E.P.F. personnel were almost continuously occupied in either sending off an expedition or bringing one back. At one period, during the late summer of 1950, no less than six separate groups of men were being juggled simultaneously--a tremendous accomplishment for a small organization.

One of Victor's most successful gambles has been his bold approach in the utilization of innovations in the technique of polar exploration. During the Greenland campaigns, for example, the E.P.F. men perfected a method of free air-drop of supplies without the use of parachutes. By means of four-engine aircraft, based in Iceland, supplies were brought in and dropped, sometimes from heights of only 20-30 feet above the surface of the ice-cap. This process, during which a loss of only three per cent was experienced, was entirely successful. It saved the considerable expense of bringing in the supplies by ship and then by oversnow traverse. In some cases certain material could not have been brought to the station in any other way without encountering gigantic expense.



Air-dropping supplies on the Greenland ice-cap.

Another important development of Victor's was his early adaptation of mechanized oversnow travel. Using discarded United States Army "weasels" and the brand-new, almost unproven, "Sno-Cats," E.P.F. personnel have been pioneers in the recent revolution in polar techniques.

The "Commandant-Charcot" returned to Antarctica in late 1949, carrying with it all the men and materials necessary to construct and occupy an Antarctic station. This time the ship arrived early enough in the season and successfully navigated the ice-pack. The station was completed in January 1950, being built on a rock outcrop at a site named Port-Martin (66° 49' S., 141° 24' E.) near Cap de la Decouverte in Adelie Land.

The French flag was ceremonially hoisted on February 3, and a week later the ship sailed for France, leaving behind a wintering party of 11, led by Liotard, to carry out the expedition's program.

While the primary purpose of the expedition was scientific, the group had also been given the objective of demonstrating French sovereignty over Terre Adelie. The wintering party assumed the character of an official administrative unit when, on August 9, 1948, a parliamentary decree had appointed the leader of the expedition as representative of the French Government at Terre Adelie. Provision had also been made for the establishment of a post office and for the issuance of a special postage stamp.

This expedition, which was the first in a series of three winterings carried out by E.P.F. during the years 1949-1953, soon learned why the Australian explorer Mawson had called this part of Antarctica "the home of the blizzard." The winds blew almost continuously, often with extreme violence (110-130 mph) giving rise to frequent prolonged blizzards.

Port-Martin main building, 1950.

During these first E.P.F. years in Antarctica a most successful scientific program was carried out with only one serious incident. In January 1952, as the third wintering party was about to occupy the station, fire broke out in the base's workshop at three in the morning. It spread rapidly, assisted by a 70-mph wind. All efforts to stop the flames failed, and within 30 minutes the base was a raging sea of flames. Most of the scientific data was saved, but the base was rapidly reduced to a heap of charred ruins.

A third winter at Port-Martin was now out of the question. It was decided that a reduced party of seven men should instead remain for the final winter of the expedition at a small camp which had been erected on the Ile des Petrels off Pointe Geologie (66° 40' S., 141° 01' E.), some 60 miles to the west. Here, a small group of men, under Mario Marret, had been landed earlier to carry out a comprehensive biological study of a rookery of Emperor penguins. This wintering, which began with so many problems, was successfully carried out under extremely difficult conditions, and the men were picked up in January 1953 for the final return to France.

During these Antarctic expeditions, E.P.F. personnel, in addition to carrying out an auspicious scientific program, mapped much of the previously uncharted terrain of Terre Adelie utilizing several long-distance journeys with "weasels" and dogs. Also, temporary radio and weather reporting stations had been established on the ice-cap, as well as a hydrographic research station.

Following the evacuation of the station at Pointe Geologie in January 1953 and the conclusion of the final summer programs in the Arctic in September of that year, Victor's men settled down in France to the job of reducing and publishing the large amount of scientific data that had been gathered during the field operations of the preceding five years.

E.P.F. Antarctic Expeditions for the International Geophysical Year--1955-59

Although Victor had not been entirely successful in convincing the French Government of the necessity of financing additional expeditions, he looked hopefully toward the preliminary discussions that were being held in many countries during 1953 with respect to the newly proposed Third International Polar Year.[5]

In 1953 Victor approached the just-formed French National I.G.Y. Committee, proposing the preparation of a series of French Antarctic expeditions to be conducted for the I.G.Y. He did not fail to mention that these expeditions would greatly strengthen France's voice in international discussions of Antarctic affairs.

Although the Committee gradually warmed up to the idea during 1953 and early 1954, the French delegates to the second meeting of CSAGI, in October 1954, were only able to report that preparations were being made in France for the dispatch of two expeditions to Terre Adelie, and possibly Kerguelen, but that both "must wait for appropriations from the French National Assembly."

Nevertheless, Victor, convinced that French national pride would finally win over the Assembly, began to plan in earnest for a series of

expeditions beginning in October 1955 and terminating in early 1959. He proposed the idea of setting up a small satellite station at the location of the South Geomagnetic Pole, estimated to be some 180 miles inland from the main station which was to be established at Pointe Geologie.

Traverse with dogs, Terre Adelie.

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5 The First and Second Polar Years, held during 1882-83 and 1932-33 respectively, although limited to the Arctic region, were eminently successful in demonstrating that an internationally co-ordinated approach to scientific research could be effectively carried out. They were the direct antecedents of the discussions held during 1950-52 on the proposal for a Third Polar Year. In October 1951 the International Council of Scientific Unions (ICSU) had approved the establishment of an international committee, Comite Special de l'Annee Geophysique International (CSAGI), to organize the "Year," and during 1952 letters had been sent to all the national scientific organizations adhering to ICSU, inviting them to form national committees for the purpose of preparing the programs to be carried out during the "Year," which was to be held in 1957-58. CSAGI held its first meeting in Brussels in July 1953. Representatives from nine countries, including France, attended this organizational meeting. Several of these delegations indicated that they were tentatively planning to send expeditions to Antarctica, an area which soon became of prime interest to CSAGI and to the I.G.Y. By the time a second meeting was held at Rome in October 1954, some 36 national I.G.Y. committees had been formed, several of which were actively planning Antarctic programs. At this meeting important decisions were reached regarding the co-ordinated Antarctic program. Following this meeting, a series of special international Antarctic conferences were held annually, beginning in July 1955 at Paris.

During this transition period Victor was faced with a major administrative problem--the fact that his organization was private in nature did not appeal to the governments which were to be responsible for the operation of the I.G.Y. program. Concern was expressed over the exercise of controls over E.P.F. This feeling was shared by the French I.G.Y. committee, although by 1954 they were ready to agree that E.P.F. was the only organization in France which had the experience and "know-how" so necessary to the prosecution of the logistic aspects of such a program.

Gradually a compromise was effected by the establishment, in June 1954, of a Comite Central des Expeditions Scientifiques under the direction of Father Lejay. This body then selected a naval hydrographer, Bertrand Imbert, to be the scientific leader of the series of expeditions, but also created a Sous-Comite Antarctique, led by Victor, who in this capacity operated E.P.F., and at the same time was responsible back to the French National I.G.Y. Committee through the CCES.

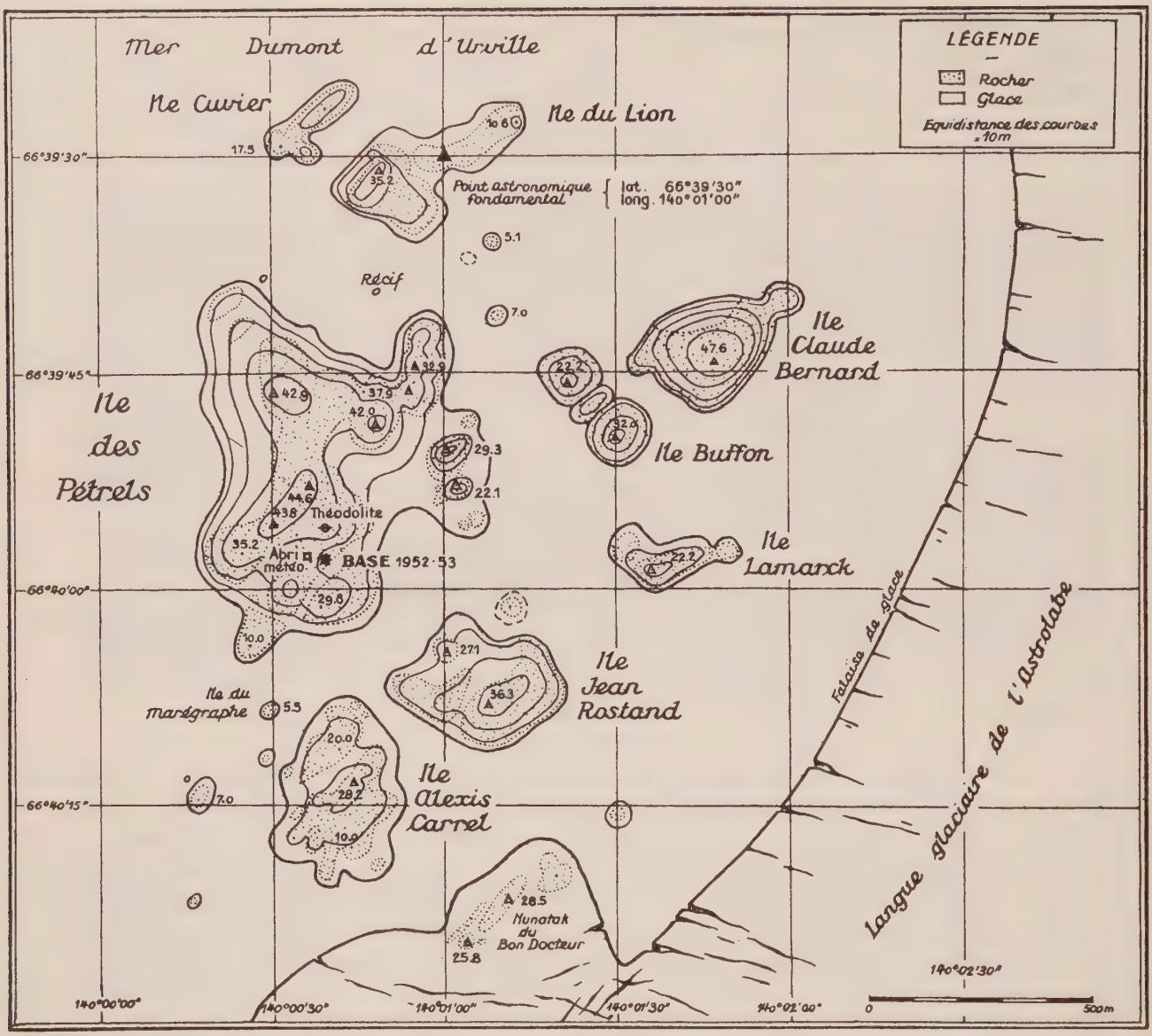
During 1955, the French Government agreed to provide 800 million francs (about $2 million) for the French Antarctic I.G.Y. program. Victor immediately speeded up the operational preparations. By September 1955 the French submitted to CSAGI a plan calling for the establishment of the two stations during a series of three expeditions.

The first of these, under the leadership of Robert Guillard, a veteran of the earlier Greenland operations, sailed in October 1955 to rebuild the station at Pointe Geologie, and make preparations for the commencement of the full scientific program the following year. By January 1956 the unloading had been completed at the site of the former station, which was found intact, and by early February, Imbert, who had accompanied the expedition for the summer operations, was in Washington negotiating for scientific equipment.

In May 1956 the station was officially named "Dumont d'Urville," and preparations began for the establishment of the inland station, to be named "Charcot." This project was completed by oversnow transport during December 1956 - January 1957, as the men and equipment, under Imbert's command, were being landed at Pointe Geologie.

Three men were left behind at Charcot (located at 69° 30' S., 139° 02' E.) for the first of two successive winterings cooped up in one small building, which was soon covered by snow. This experience was perhaps among the most unique Antarctic episodes of the I.G.Y. program in Antarctica.

The third and last French I.G.Y. Antarctic expedition, under Gaston Rouillon (also a veteran of E.P.F. expeditions to Greenland), sailed from France in October 1957, returning in early 1959, having carried out the program as set down by the French I.G.Y. Committee.



Archipelago of Pointe Geologie, Terre Adelie

Expedition Glaciologique Internationale au Groenland (E.G.I.G.) 1957 - 1960

In 1956, at the instigation of Victor and others, a movement was begun among European glaciologists to organize support for an international scientific expedition to Greenland during the I.G.Y. Realizing that the support of the French Government would be more easily obtained by French affiliation with an internationally-sponsored program, Victor and his associates, especially Albert Bauer, an energetic glaciologist from Strasbourg, diligently sought support from the other European countries for a co-ordinated program.

Scientists from several nations became interested, and a nine-man international governing committee was formed under the chairmanship of a

prominent Swiss scientist, Prof. R. Haefli. Representation on the committee included three Frenchmen, two Danes, two Swiss, and two Germans. All four Governments agreed to help finance the expedition. Later, Austria also became interested.

Sponsorship was obtained from the International Commission on Snow and Ice, and E.P.F. was given authority to organize and operate the planned expeditions. The preparation of the scientific program was placed under the direct control of the governing committee.

While Victor was busily running around Europe in 1956 gathering support and promises of funds for E.G.I.G., his organization in Paris was preparing a daring and extraordinary expedition, quite unique in polar history. On the 27th of August 1956, a party of four men, under the leadership of thirty-year-old glaciologist Jean Dumont, was parachuted on to the center of the Greenland ice-cap (at 71° 20' N., 33° 55' W.) together with all supplies necessary to construct a hut and to support the party for an entire year. The series of drops included free-drops of equipment from heights of 16-32 feet above the surface of the ice.

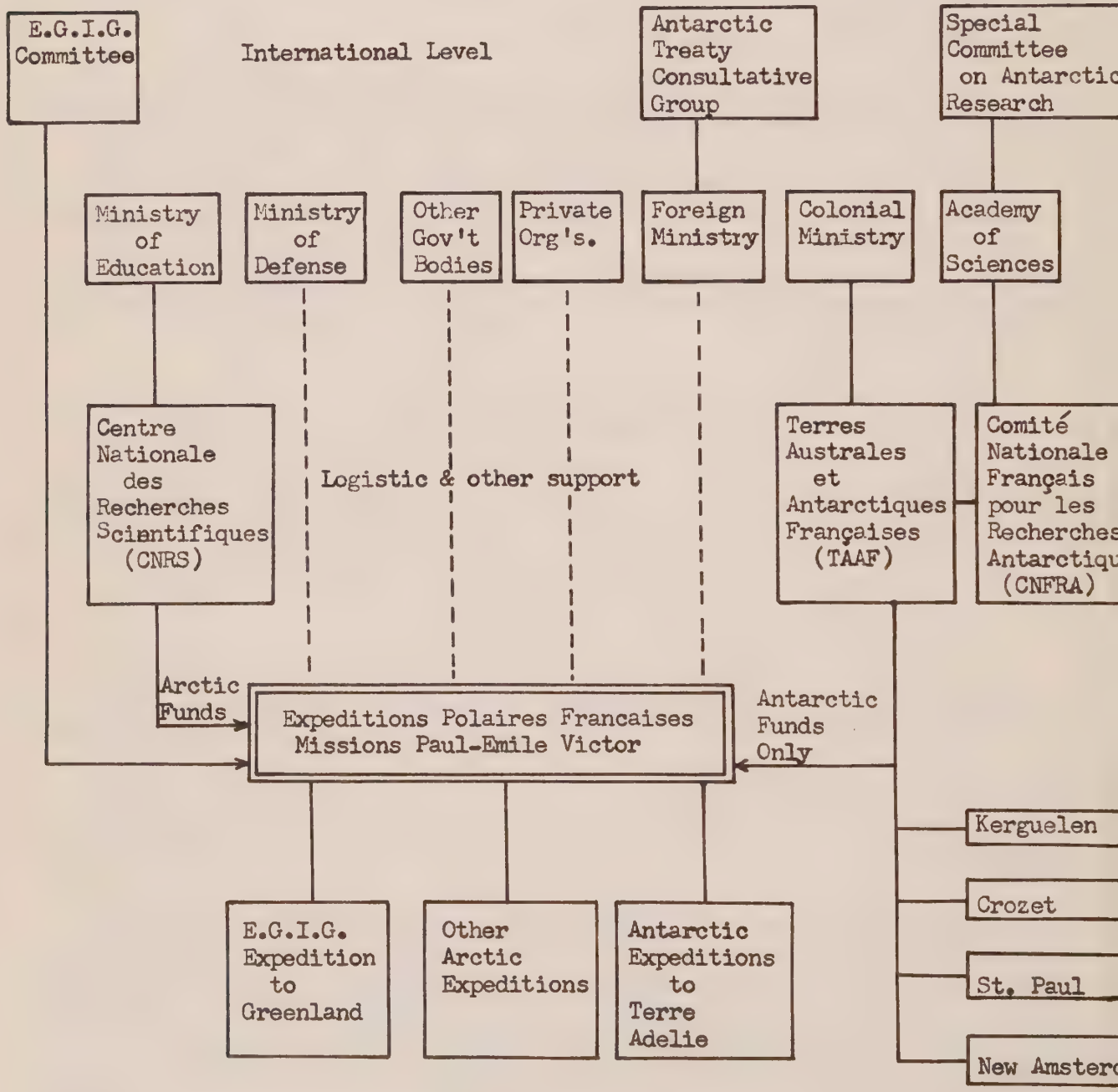
The object of this expedition, which so effectively proved the success of Victor's innovations, was to continue the observations begun in 1950-51, and to demonstrate that a lightly equipped party could be flown in rapidly to an inland station, winter there, and return to the coast on foot. The hut was erected on the 7th of December, and the group carried out their assignment without a hitch, returning to the coast in June 1957 as planned. Results of the party's investigations were correlated directly with those of E.G.I.G., which was about to be launched.

The area to be studied by E.G.I.G. was that in which E.P.F. had worked from 1948-53, and more particularly between latitudes 68° and 73° North and longitudes 53° West and 28° West (an area 650 miles wide and 300 miles from north to south.) Activities commenced during the summer of 1957, when reconnaisance flights were made to select a suitable route for "weasels" from the air base at Sondre Stromfjord on the west coast up on to the ice sheet.

During the summer of 1958 expedition supplies were transported by ship to Sondre Stromfjord and stored for use during 1959, when a large party, totaling some 120 members, participated in the opening stages of E.G.I.G.'s operations. By late summer 1959 an intensive campaign, including a series of traverses, was underway, and six men were installed in a specially-designed dome building, placed many feet under the snow, to winter on the ice-cap until spring 1960, at the same site as that used by Dumont in 1956-57.

These men are to be evacuated this summer, when a second intensive summer campaign will be conducted under E.P.F.'s leadership. Although

E.P.F. and the Administrative Organization of French Antarctic Activity, 1960



E.G.I.G.'s field operations will terminate at the end of this summer, it is expected that the program of data reduction and publication of results will take several years.

E.P.F. Post-I.G.Y. Antarctic Operations

While the third I.G.Y. Antarctic expedition to Terre Adelie was in the field the French Government was faced with the problem of defining future French activity in Antarctica. To complicate the matter scientists from many countries were clamoring for the continuation of an internationally co-ordinated system, which had worked so well during the I.G.Y.

Following a United States proposal in December 1956 for a one-year continuation of the I.G.Y. Antarctic program, a stormy debate had taken place in Paris during June 1957 at the fourth meeting of the CSAGI Antarctic group. At this meeting Victor reported that the French National Committee had not yet made a decision. Although French scientists and the E.P.F. were in favor of continuing, he stated that prospects were dim that the French Government would continue to give financial support.

In early 1958, as the final I.G.Y. expedition was settling down to its winter hibernation in Antarctica, busy discussions continued in Paris. In February the French delegate reported to the first meeting of the newly formed Special Committee for Antarctic Research (S.C.A.R.)[6] that France might not continue its Antarctic operations, but would welcome possible participation in an international expedition.

The French Academy of Sciences appointed a Comite National Francais pour les Recherches Antarctiques (CNFRA) to draw up a recommended scientific program for post-I.G.Y. French Antarctic activity, and to appoint a representative to S.C.A.R.[7]

Then, almost at the last minute, the Government agreed, in July 1958, to a one-year continuation of the program, with E.P.F. to have the logistic responsibility. Following several hectic weeks of effort in November 1958, the first French post-I.G.Y. Antarctic Expedition (later officially named "Neuvieme Expedition Francaise en Terre Adelie") of 12 men was dispatched under the leadership of Rene Merle. Included was a special helicopter team of four men and two aircraft to carry out an aerial reconnaisance program.

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[6] This Committee was formed during the winter of 1957-58 to take over from CSAGI the post-I.G.Y. international co-ordination of scientific activity in Antarctica. It is functioning very efficiently today under the watchful eye of the International Council of Scientific Unions.

[7] Bertrand Imbert, the first representative of France to S.C.A.R., was succeeded in December 1958 by Gilbert Weill.

Finally, in the summer of 1959, as international negotiations were being conducted in Washington toward the drafting of an Antarctic Treaty, the French Government made the decision to continue, for an indefinite period, regular French participation in Antarctic scientific work.

In November 1959, the 10th French expedition, led by Alfred Faure, left France for Terre Adelie. Not to return until early 1961, this group carried out a detailed summer program, during which a geological map of the coast of Terre Adelie was prepared.

E.P.F. and "Terres Australes et Antarctiques Francaises"

As mentioned earlier, E.P.F.'s relationship with the Government has always been under scrutiny. In early May 1948, even as E.P.F. was first getting underway, the French National Assembly was discussing the advisability of creating a government office in Paris to "administer" the French Antarctic Territory of Terre Adelie and also the sub-Antarctic islands of Kerguelen, Crozet, New Amsterdam, and St. Paul,[8] all of which had been attached since 1924 as an administrative dependency of the Governor of Madagascar.

These conversations continued intermittently until 1951, when the Government introduced a bill calling for the detachment of the island territories from Madagascar, and together with Terre Adelie making them a separate overseas territory directly under the Minister of Overseas France. The Government's bill was defeated in the Assembly, and it was not until 1954, when the I.G.Y. preparations were underway, that a similar bill was approved.

In August 1955 a subsequent law conferred financial and administrative autonomy on the new territory, which was officially named "Terres Australes et Antarctiques Francaises (T.A.A.F.)," and in September, Xavier Charles Richert was appointed chief administrator and given an office in the building occupied by the French Colonial Ministry.

During 1956 the responsibility of T.A.A.F. was further defined, and in October an administrative agreement was arranged between it and E.P.F., ensuring the latter complete freedom in maintaining its then current operations in the Arctic and Terre Adelie. Funds for the former are still channeled to E.P.F. through C.N.R.S. of the Ministry of Education, and T.A.A.F. monitors all Antarctic funds for E.P.F.

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[8] The term "sub-Antarctic" would hardly seem to apply to these islands. New Amsterdam and St. Paul, tiny dots located at 37° and 38° South respectively, have temperatures never dropping below freezing. The temperatures at Kerguelen (located at 49° South) vary from plus 14° F. to plus 72° F., as do those at Crozet.

In practice T.A.A.F. has limited its operations to maintaining the French meteorological stations at Kerguelen (which was first established in 1951 by Paul Riopel, co-leader of the French 1950-52 expedition to the island) and at New Amsterdam.

During 1957-58 T.A.A.F. and its governing committee helped convince the French Government of the desirability of continuing the Antarctic area stations. In February 1958 the T.A.A.F. office was enlarged to include a newly appointed administrative officer, J. H. Roly, who today, in effect, manages most of the operations of the office.

In December 1958, after four years of service, Richert was succeeded by Pierre Rolland, and T.A.A.F. was ensured funds for the continuation of the activities at Kerguelen and New Amsterdam. In June 1959, the T.A.A.F. - E.P.F. agreement was modified, bringing the two closer together.

Today Rolland administers a staff of some 12 people, established in a suite of offices at the Colonial Ministry. A scientist, Dr. Bost, has been added to the staff to co-ordinate the scientific program with other agencies within the French Government, and a series of scientific publications have begun.

Operating from an annual budget of about 5.7 million new francs ($1.14 million), 40 per cent of which is turned over to E.P.F., T.A.A.F. maintains year-round stations at New Amsterdam (30 men) and Kerguelen (65 men). All personnel are placed on government civil service rolls during the tenure of their employment by T.A.A.F., although for the most part military personnel are borrowed for the support functions.

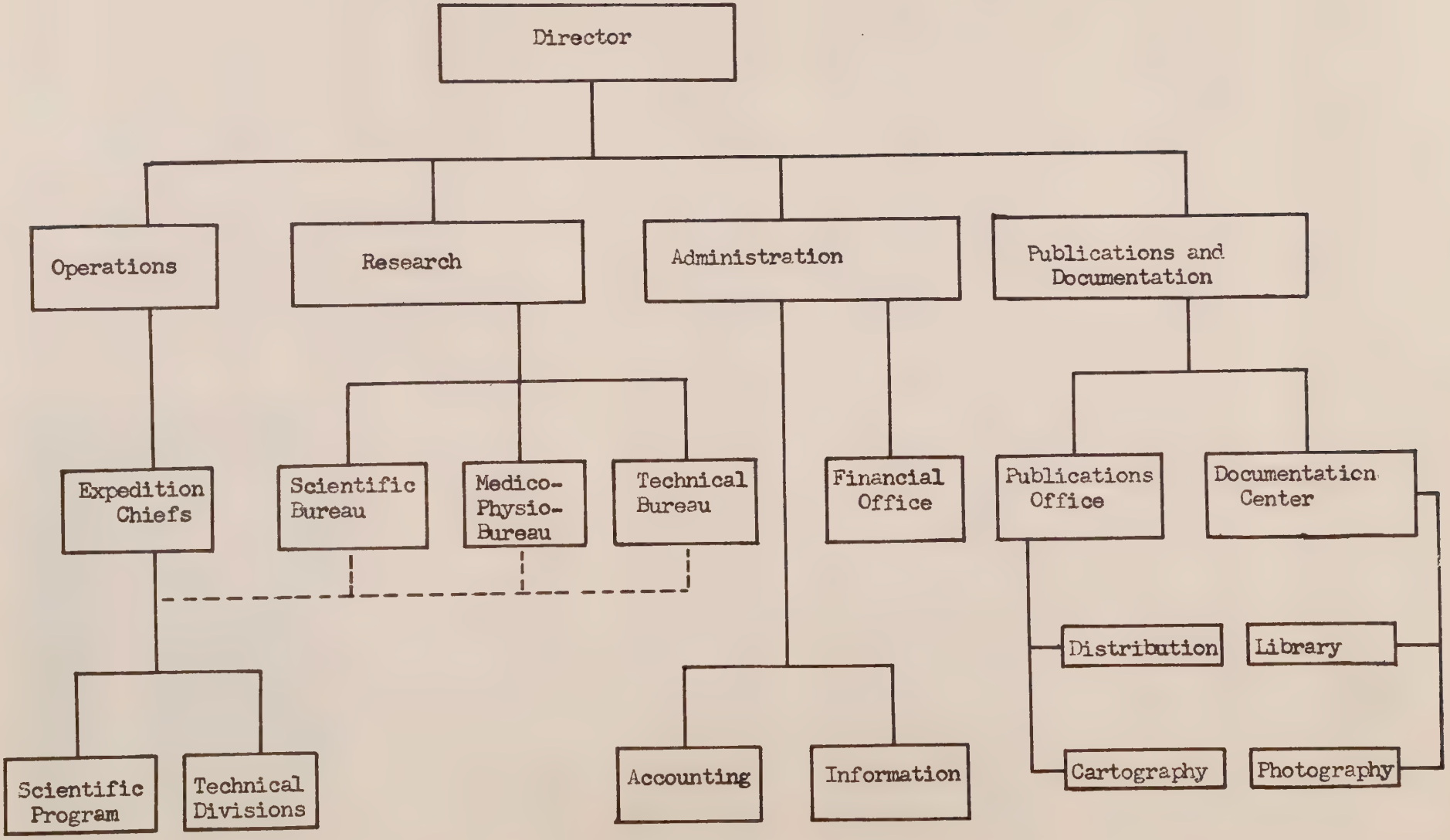
Expeditions Polaires Francaises Today

During the past 13 years E.P.F. has grown enormously, both in stature and physical plant. Between 1947 and 1960 this organization, with its bold, new approach to polar exploration, has been responsible for some 25 polar expeditions, during which eight year-round parties have been installed in Antarctica, and another four in Greenland.

Almost continually occupied with administrative and field problems, Victor, and the men he has gathered around him, have been primarily responsible for stimulating French interest in polar research.

The organization, with a worldwide reputation for accomplishment, is

Organization of Expeditions Polaires Francaises in 1960



now recognized as having evolved into an outstandingly efficient nonmilitary polar organization. Successfully coping with extraordinary logistic and administrative problems, the organization has now reached the stage where it can begin to acquire some of the characteristics of a permanent institute.

Still under the personal direction of Paul-Émile Victor, E.P.F. now has four main administrative subdivisions: operations, research, administration, and documentation and publication. Robert Guillard, veteran of a number of Arctic and Antarctic expeditions, is in charge of co-ordinating operations.

Working closely with the leader of a particular expedition preparing to take the field, Guillard, a medium-sized serious man in his mid-thirties, makes available the technical services of the E.P.F. He has become an expert in cutting red tape, cajoling equipment and supplies from reluctant manufacturers or military departments, and in general getting things done. His role remains co-ordinative, as each expedition leader is always given considerable authority over his preparations.

Mlle. Gillet - Engineer

There is no current director for the research division, but the work is easily divided. A pair of remarkable young women, both professional engineers, Mlles. Gillet and Jomard, operate the technical bureau.

The efficient, energetic leader, Mlle. Gillet, has already participated in an expedition to Greenland, and has been partly responsible for the development of an entirely new concept of polár housing, which is currently being used at the E.G.I.G. camp in Greenland. The two girls prepare and assemble technical reports, studies, and other information needed in organizing the E.P.F. expeditions.

Dr. Jean Rivolier, a world-renowned expert on cold injury and polar medicine, together with Dr. Gilbert Weill, a young geophysicist who also acts as France's representative to S.C.A.R., are responsible for the co-ordination of the scientific aspects of the program with various other French scientific organizations and universities which participate in the E.P.F. programs.

The administrative service is headed by M. Vaugilade. Responsible for all financial and administrative matters, he also acts as Victor's deputy within the organization. Under Vaugilade's direction, and working closely with Victor, Mlle. Simone Weiller performs the functions of an information bureau.

M. Vaugilade - Administration

Readily classified at her fingertips are references to almost every aspect of E.P.F.'s history and relations with the Government, as well as background information on French polar history. A charming and helpful woman, Mlle. Simone is an important asset to E.P.F.

Victor himself runs the documentation and publications division, an important section of which is that devoted to photography. This work, which is presided over by an experienced husband-and-wife team, M. and Mme. Jacques Masson, has proved to be of great importance to E.P.F. Masson, who has participated in many of the expeditions, together with his wife, edits, catalogues, stores, and turns out excellent quality still and motion pictures depicting all of the many aspects of E.P.F.'s varied operations.

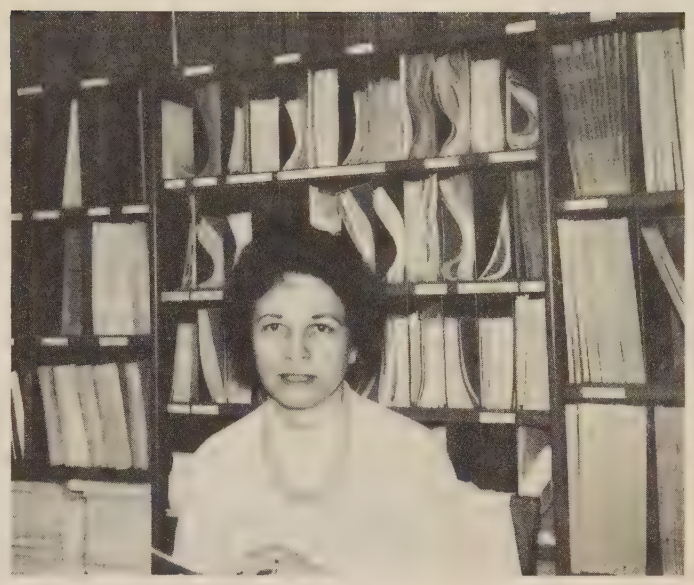
The rental and sale of these films has brought in a substantial income to E.P.F., as well as personal fame to Masson, who is today probably the world's most experienced authority on polar photography.

Mlle. Simone Weiller - Information

A vigorous program of publication has resulted in the development of a bibliographic catalogue of over 200 titles, most of which have been produced either by E.P.F., or at its initiative. The subject matter covers a wide range of polar science and technology, as well as historical accounts of E.P.F. operations in Greenland, Iceland, and in Antarctica.

Mme. Alice Martin, a petite and vivacious woman, coordinates the publication of all E.P.F. scientific, technical, and historical reports.

She also sees to it that these reports are distributed to scores of polar organizations throughout the world, and keeps an extensive master file in her office.



Mme. Alice Martin - Publications

The library, although still in its infancy, is well on its way to becoming an important center of polar documentation. Limited funds preclude any large-scale purchases, but a highly organized system of exchanges with other libraries and institutions brings in a continuing stream of documents and books of current polar interest. Mlle. Francoise, the librarian, presides over the rapidly growing collection. A young, attractive woman, she has been extremely helpful in getting hold of material for me during my stay here.

Mlle. Francoise - Librarian

A total of 50-80 personnel are managed by E.P.F. each year, with varying composition as field personnel are changed. This year, some 20 men are in the field, another 20 are working in the Paris office, and still another dozen, all veterans of previous expeditions, are working up data. The entire administrative budget is less than $50,000 annually.

One of E.P.F.'s greatest assets is its expedition headquarters, a building which the City of Paris made available to the organization in 1951. Conveniently located across the street from the secluded beauty of the Bois de Boulogne, and a few blocks south of the new NATO structure, the building serves E.P.F.'s purposes admirably.

HEADQUARTERS EXPEDITIONS POLAIRES FRANCAISES

47, Avenue du Marechal Fayolle, Paris XVI^{e}

REZ-DE-CHAUSSÉE

1. Standard téléphonique, réception.
2. Archives, classement, diffusion.
3. Comptabilité.
4. Administration.
5. Cuisine des gardiens.
6. Sections scientifiques.
7. Salle de dessin, cartothèque.
8. Gravimètres.
9. Intendance, constructions, transports.
10. Chef d'expédition.
11. Publications.
12. Relations extérieures, Année Géophysique.
13. Courrier.
14. Secrétariat général.
15. Bureau P.-E. Victor.
16. Toilette, douches.
17. Services techniques.
18. Chambre des gardiens.

PREMIER SOUS-SOL

19. Service des achats.
20. Matériel médical.
21. Magasin des publications.
22. Puits et treuil.
23. Bouilleurs du chauffage central.
24. Centre de documentation, bibliothèque.
25. Laboratoire photo-cinéma, chambre noire.
26. Salle de réunion et de projections.
27. Magasin, salle d'emballage, vivres.
28. Magasin, salle d'emballage, vivres.
29. Hall d'emballage, stockage et manutention.

DEUXIÈME SOUS-SOL

30. Hall d'emballage, stockage, manutention.
31. Quincaillerie.
32. Habillement, équipement, campement, couchage, ski.
33. Garage des véhicules chenillés, traîneaux, accessoires et pièces détachées. — Eléments de construction.
34. Soute à combustible.
35. Couloir d'accès.
36. Rampe d'accès débouchant avenue Chantemesse.
37. Citerne à essence.
38. Garage des voitures et camions.

JH-I-'60

Readily accessible from the main highways, it is at the same time the administrative center and the workshop for equipment and supplies. It provides, in the opinion of many, the most efficient single headquarters for the organization of polar expeditions presently existing in any country (with the possible exception of the USSR).

The ground floor contains the administrative offices, publications and documentation center, and logistic planning space. The lower of two basements includes garage space for a number of polar vehicles, storage room for camping equipment, clothing, and instruments as well as a highly organized packaging installation.

The upper basement includes the library, photographic lab, projection and dark rooms, and additional warehousing space. A unique system of packing and movement has been installed in the building, so that incoming supplies can be quickly prepared for transshipment to the field.

Victor's current planning for the future, in addition to maintaining the Antarctic program and converting Station Dumont d'Urville into a permanent establishment, includes a plan (Project Aconcagua) for the establishment of a high-altitude station (at 21,000 feet) in the Andes jointly with Argentina, and also a campaign to gather support for the renewal of E.G.I.G. in 1965 and perhaps on a permanent basis.

As E.P.F. progressively becomes more mature, thought is being given to the possibility of changing the status of the organization. Although Victor will always maintain its private nature, he has been under a tremendous strain for 13 consecutive years while he has almost single-handedly guided its destiny. This responsibility may well be distributed in future years. Now that Government support is assured on a regular basis, and solid contacts established with polar organizations throughout the world, E.P.F. may well sit back and compliment itself on its accomplishments. Somehow, I don't believe they will take time out to do it.

John Hanessian, Jr.

[Photographs and maps on the following pages are courtesy Expeditions Polaires Francaises: 1, 3, 5, 7, 9, 10, 12, 14, 22 (top), 23 (top), 24, 25; charts and photographs by John Hanessian, Jr.: 8, 16, 19, 20, 21, 22 (bottom), 23 (bottom).]